## Claims

- 1. A resin obtained by polymerizing a starting material monomer, wherein the monomer incorporates a hydrophilic spacer.
- 2. The resin of claim 1, wherein the monomer is a (meth) acrylic monomer.
- 3. The resin of claim 1 or 2, wherein the hydrophilic spacer has at least one partial structure represented by any one formula selected from the group consisting of the following formulas (Ia) to (Ie).

wherein (Ia),

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- 15  $A_1$  is -0- or -NH-,  $A_2$  is a single bond or a lower alkylene group,  $A_3$  is an appropriate joining group, each of  $X_1$  to  $X_3$ , whether identical or not, is a single bond or a methylene group optionally substituted by a linear or branched alkyl group having 1 to 3 carbon atoms,
- each of  $R_1$  to  $R_7$ , whether identical or not, is a hydrogen atom, a linear or branched alkyl group having 1 to 3 carbon atoms,  $CH_2OH$  or a hydroxyl group,
  - m is an integer of 0 to 2, m' is an integer of 0 to 10, m" is an integer of 0 to 2,
- when a plurality of  $R_3$  to  $R_7$  units exist, they may be identical or not, and when a plurality of  $X_3$  units exist, they may be identical or not;

$$-A_1-A_4 \circ \left( \begin{array}{c} \\ \\ \end{array} \right)_n \stackrel{H}{\longrightarrow} (Ib)$$

wherein (Ib),

A<sub>1</sub> is -O- or -NH-, A<sub>4</sub> is a lower alkylene group, each of n and n', whether identical or not, is an integer of 1 to 10;

$$-A_{1}-A_{4} \circ \left( \circ \right)_{p} \circ \left( \circ \right)_{p''} ^{H}$$

$$(Ic)$$

wherein (Ic),

A<sub>1</sub> is -O- or -NH-, A<sub>4</sub> is a lower alkylene group, each of p, p' and p", whether identical or not, is an integer of 1 to 10;

$$\begin{array}{c|c}
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 & X_4 \\
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wherein (Id),

 $A_1$  is -O- or -NH-,  $A_2$  is a single bond or a lower alkylene group,

- $15~X_4$  is a single bond or a methylene group optionally substituted by a linear or branched alkyl group having 1 to 3 carbon atoms, each of  $R_8$  to  $R_{10}$ , whether identical or not, is a hydrogen atom, a linear or branched alkyl group having 1 to 3 carbon atoms,  $-CH_2OH$  or a hydroxyl group,
- 20 q is an integer of 1 to 7,

when a plurality of  $R_8$  units exist, they may be identical or not, and when a plurality of  $X_4$  units exist, they may be identical or not;

$$-A_1 \longrightarrow O \longleftrightarrow O \xrightarrow{H} O \xrightarrow{\text{(Ie)}} O$$

5 wherein (Ie),

 $A_1$  is -O- or -NH-,

r is an integer of 1 to 10.

4. The resin of claim 3, wherein the hydrophilic spacer has at least one partial structure represented by the following formula (Id).

$$-A_{1}-A_{2}$$

$$\begin{bmatrix}
OH \\
X_{4} \\
C \\
C \\
R_{8}
\end{bmatrix}$$

$$\begin{bmatrix}
R_{9} \\
C \\
R_{10}
\end{bmatrix}$$
(Id)

wherein (Id),

 $A_1$  is -O- or -NH-,  $A_2$  is a single bond or a lower alkylene group,

 $X_4$  is a single bond or a methylene group optionally substituted by a linear or branched alkyl group having 1 to 3 carbon atoms, each of  $R_8$  to  $R_{107}$ , whether identical or not, is a hydrogen atom, a linear or branched alkyl group having 1 to 3 carbon atoms,

20 -CH<sub>2</sub>OH or a hydroxyl group,

q is an integer of 1 to 7,

when a plurality of  $R_8$  units exist, they may be identical or not, and when a plurality of  $X_4$  units exist, they may be identical or not.

- 5. The resin of claim 4, wherein in the formula (Id),  $A_1$  is -O-,  $A_2$  is a methylene group,  $X_4$  is a single bond, q is 4, the plurality of  $R_8$  units are identically hydrogen atoms, and  $R_9$  and  $R_{10}$  are hydrogen atoms.
  - 6. The resin of claim 1, wherein the hydrophilic spacer is a compound represented by the formula shown below.

- wherein Ya is a hydrogen atom or an amino-group-protecting group.
  - 7. The resin of claim 5, which comprises a copolymer of a compound represented by the formula shown below.

$$H_3C \xrightarrow{CH_2} O \xrightarrow{OH} OH \xrightarrow{OH} N \xrightarrow{N} Ya$$

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- wherein Ya is a hydrogen atom or an amino-group-protecting group.
- 8. A compound represented by the formula shown below.

$$H_3C$$
OH
OH
N
H
Ya

- wherein Ya is a hydrogen atom or an amino-group-protecting group.
- 9. The resin of claim 3, wherein the hydrophilic spacer has at

least one partial structure represented by the following formula (Ie).

$$-A_{1} \longrightarrow O \longleftrightarrow O \longrightarrow I$$
(Ie)

wherein (Ie),

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5 A<sub>1</sub> is -O- or -NH-, r is an integer of 1 to 10.

10. The resin of claim 9, wherein in the formula (Ie),  $A_1$  is -0-.

11. The resin of claim 1, wherein the hydrophilic spacer is a compound represented by the formula shown below.

wherein Yb is a hydrogen atom or an amino-group-protecting group.

12. The resin of claim 10, which comprises a copolymer of a compound represented by the formula shown below.

- 20 wherein Yb is a hydrogen atom or an amino-group-protecting group.
  - 13. A compound represented by the formula shown below.

wherein Yb is a hydrogen atom or an amino-group-protecting group.

- 5 14. The resin of claim 9, wherein in the formula (Ie),  $A_1$  is -NH-.
  - 15. The resin of claim 1, wherein the hydrophilic spacer is a compound represented by the formula shown below.

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wherein Yb is a hydrogen atom or an amino-group-protecting group.

16. The resin of claim 14, which comprises a copolymer of a compound represented by the formula shown below.

$$H_3C$$
 $CH_2$ 
 $NH-YD$ 

wherein Yb is a hydrogen atom or an amino-group-protecting group.

20 17. A compound represented by the formula shown below.

 $H_3C$  NH-Yb  $CH_2$ 

wherein Yb is a hydrogen atom or an amino-group-protecting group.

- 5 18. A solid phase carrier for affinity chromatography comprising a ligand immobilized on the resin of any one of claims 1 to 7, 9 to 12 and 14 to 16.
- 19. The solid phase carrier of claim 18, which is for searching a target molecule for the ligand.
  - 20. A screening method for a target molecule that exhibits a specific interaction with a ligand, which comprises at least the following steps:
- 15 (i) a step for immobilizing a ligand to the resin of any one of claims 1 to 7, 9 to 12 and 14 to 16,
  - (ii) a step for bringing a sample comprising or not comprising a target molecule into contact with the ligand-immobilized resin obtained in (i) above,
- (iii) a step for identifying and analyzing a molecule that has exhibited or has not exhibited a specific interaction with the ligand, and
- (iv) a step for judging a molecule that exhibits a specific interaction with the ligand to be a target molecule on the 25 basis of the analytical results obtained in (iii) above.
  - 21. A method of measuring a target molecule that exhibits a specific interaction with a ligand in a sample, which comprises at least the following steps:
- 30 (i) a step for immobilizing a ligand to the resin of any one

- of claims 1 to 7, 9 to 12 and 14 to 16,
  - (ii) a step for bringing a sample into contact with the ligand-immobilized resin obtained in (i) above,
- (iii) a step for measuring and analyzing a molecule that has
- 5 exhibited or has not exhibited a specific interaction with the ligand, and
  - (iv) a step for measuring a target molecule that exhibits a specific interaction with the ligand on the basis of the analytical results obtained in (iii) above.

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